



## Can Midstream/MLPs Be a Green Investment?

February 16, 2021

Author: Stacey Morris

### Summary

- Many probably underappreciate the role that traditional oil and gas companies have in addressing climate problems and providing solutions.
- For the foreseeable future, natural gas and natural gas liquids are going to have an important role to play in reducing global emissions as a replacement for dirtier fuels.
- Midstream companies are helping facilitate the use of cleaner energy today with more opportunities likely as progress is made with renewable fuels production, carbon capture, and hydrogen, for example.

Discussions of environmental, social, and governance (ESG) factors and the energy transition have pervaded the traditional oil and gas landscape from management remarks on earnings calls to investor presentations. The industry is making a concerted effort to address ESG-related concerns and questions around the role of oil and natural gas companies in an [energy transition](#). Midstream has been active on this front as well. While [past Alerian research](#) has focused on midstream's progress with ESG-related metrics and sustainability reporting, which have continued to improve, today's note focuses more on the case for why an investment in midstream can be an ESG-conscious investment, specifically from an environmental perspective.

### Oil and gas companies have a role to play in providing cleaner energy and reducing emissions.

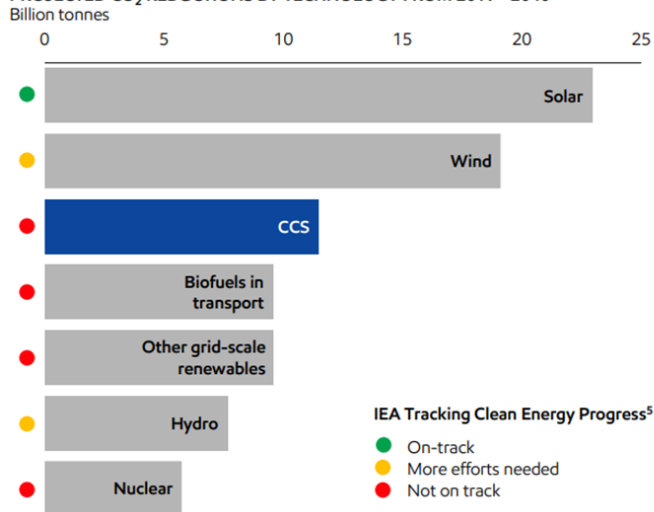
Many probably underappreciate the role that traditional oil and gas companies have in addressing climate problems and providing solutions. Energy companies from the integrated majors to refiners to midstream are investing in renewables and clean energy technologies for the future ([read more](#)), but many are already involved in activities that support cleaner energy today. For example, [Valero](#) (VLO) is the largest refiner [globally](#), but it is also the world's second-largest producer of corn ethanol and renewable diesel. Other refiners also produce renewable fuels and support clean energy in more subtle ways. For example, refiner [Phillips 66](#) (PSX) [produces](#) special types of petroleum coke used in the lithium ion batteries of electric vehicles. In midstream, [Kinder Morgan](#) (KMI) noted at its recent [Investor Day](#) that it is not only one of the largest handlers of ethanol in North America, but it also facilitates the movement of renewable diesel and related feedstocks like vegetable oils and fats. MLPs with refined product terminals, including [MPLX](#) (MPLX) and [Magellan Midstream Partners](#) (MMP), are actively blending renewable fuels (ethanol, biodiesel) today.

Additionally, oil and gas companies have existing expertise with carbon capture and storage (CCS), which is expected to play a critical role in reducing emissions. The chart on the following page from [ExxonMobil's \(XOM\) 4Q20 earnings presentation](#) is based on data from the International Energy Agency (IEA) and helps frame the need for CCS under the IEA's Sustainable Development Scenario, which aligns with the Paris Agreement. As noted on the slide, CCS is expected to mitigate 15% of total emissions, and without CCS, the cost of achieving a 2-degree Celsius target would increase by 138% per the Intergovernmental Panel on Climate Change (IPCC). Captured carbon dioxide is often used in enhanced oil recovery (EOR), which involves pumping carbon dioxide into oil reservoirs to increase production and extend productive life. [Occidental](#) (OXY) is one of the industry leaders in carbon management and [plans](#) to utilize EOR and CCS as part of its goal to achieve net-zero operational and energy-use emissions by 2040. Within the midstream space, KMI is the [largest transporter](#) of carbon dioxide in the US and uses captured carbon to produce oil through EOR. Increased use of CCS may necessitate more pipeline solutions in the future to move carbon dioxide from where it is generated to where it can be disposed through EOR, creating potential opportunities for midstream.

## CARBON CAPTURE IS CRITICAL FOR A 2°C PATHWAY

CCS mitigates emissions at an affordable cost

### PROJECTED CO<sub>2</sub> REDUCTIONS BY TECHNOLOGY FROM 2019 - 2040<sup>1</sup>



### • IEA/IPCC assessment of carbon capture:

- Grows to 10% of energy system by 2040<sup>2</sup>
- Mitigates 15% of global emissions<sup>3</sup>
- Societal costs to achieve 2°C are more than double without CCS<sup>4</sup>
- Market deployment is not on track

See Supplemental Information for footnotes.

26

Source: ExxonMobil 4Q20 earnings presentation

## Natural gas and natural gas liquids have an important role to play in reducing emissions.

For the foreseeable future until renewables are affordable, reliable, and widely available, natural gas is going to have an important role to play in reducing global emissions. Typically, coal-to-gas switching is top of mind on this front, but there are other ways in which natural gas and natural gas liquids (NGLs) can help improve overall emissions. In 2019, coal remained in the top spot for global power generation at [36%](#) according to the IEA. In the US, coal provided 24% of power generation in 2019 and an estimated 20% in 2020 per the [Energy Information Administration](#) (EIA). At their recent [ESG Day](#), management of [Williams Companies](#) (WMB) highlighted that there are 77 coal power plants along the Transco pipeline route from Texas to New York. If all converted to natural gas, it would lower carbon dioxide emissions by more than 380 million metric tons, equivalent to removing 84 million cars from the road, while also requiring 12 billion cubic feet per day of new pipeline capacity.

Beyond serving as a replacement for coal in power generation, natural gas and NGLs can help reduce emissions in other ways. Municipalities, airports, and companies such as Amazon (AMZN) and UPS (UPS) have [deployed or signed purchase agreements](#) for trucks powered by compressed natural gas, which [emit](#) 27% less carbon dioxide relative to diesel fuels. While some of these vehicles will consume renewable natural gas – produced from dairy farms or landfills – for an even cleaner profile, limited availability means that conventional natural gas will also be needed. More broadly, NGLs such as propane and butane (also referred to as liquefied petroleum gases or LPGs) with their cleaner burning profile are helping [reduce global emissions](#) by replacing biomass, kerosene, and other dirty fuels often used for cooking or heating. Pollution from burning biomass is not unique to developing countries. In the San Francisco Bay Area, wood smoke from fireplaces and stoves is the [largest source](#) of fine particulate pollution during the winter, and new buildings are not [allowed](#) to include wood-burning devices, though natural gas fireplaces are permitted. The Bay Area Air Quality Management District [recommends](#) citizens use a gas or propane grill rather than a wood or charcoal cooking tool.

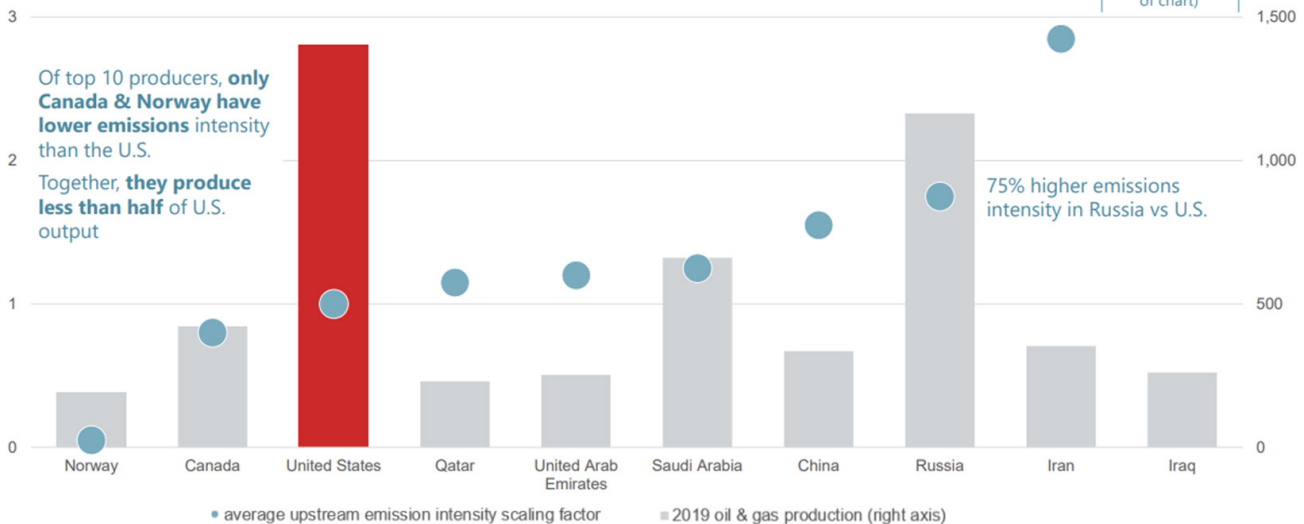
Whether as a replacement for coal in power generation or wood in household cooking or heating, natural gas and NGLs are helping to reduce emissions globally with more progress still to be made. Clearly, the production of natural gas (and oil) generates emissions, but as shown on the following page, Canada and the US have relatively low emissions intensity when compared to other leading producers of oil and gas.

## U.S. is a Responsible Producer of Critical Energy Products

One of the lowest emissions intensity producers in the world & at unmatched scale

KINDER MORGAN

average upstream emission intensity of top 10 global producers (relative to the U.S., shown as 1)



Source: International Energy Agency, World Energy Outlook, October 2020, World Energy Model assumptions.  
 Note: Scaling factors are based on the age of infrastructure and types of operators within each country (international, independent, or national oil companies). The strength of regulation and oversight, incorporating government effectiveness, regulatory quality and the rule of law as given by the Worldwide Governance Indicators compiled by the World Bank (2017), affects the scaling of all intensities.

20

Source: Kinder Morgan's 2021 Investor Day Presentation

## How can an investment in midstream fit with an environmentally conscious investing approach?

As discussed in prior research ([read more](#)), midstream is taking steps to reduce emissions, source more renewable power, and evaluate renewable-focused projects, with [Energy Transfer's \(ET\) announcement](#) of the formation of an Alternative Energy Group last week providing one example. Midstream companies are blending and handling renewable fuels and feedstocks today, transporting renewable natural gas, and specific to KMI, actively involved in carbon capture and storage. [Enbridge \(ENB\)](#) has a [renewables portfolio](#) including wind, solar, and geothermal assets, while [TC Energy \(TRP\)](#) has two clean energy pumped hydro storage [projects](#). Midstream's involvement in transporting and processing natural gas and NGLs is also helping facilitate cleaner energy use in the US and abroad through exports – a contribution that should merit inclusion in green portfolios according to the President and CEO of WMB. Indeed, [nearly 1 million WMB shares](#) were held by a variety of ESG-focused ETFs as of September 30, 2020, with ownership having increased as the company has progressed ESG goals and is [targeting](#) net-zero emissions by 2050. In the broad [Alerian Midstream Energy Index \(AMNA\)](#), nearly 70% of the index by weighting is primarily focused on activities related to natural gas and natural gas liquids – transportation, gathering and processing, or liquefaction.

**“And we think that our natural gas-focused strategy should position Williams as a core investment in any green portfolio.”**

Alan Armstrong, President and CEO, during Williams' (WMB) Virtual ESG Event, January 19, 2021

With the energy transition in early innings, midstream could see more opportunities to facilitate the use of alternative energy in the years ahead. The [conversion](#) of some refineries to renewable diesel<sup>1</sup> could create opportunities to supply feedstocks or distribute finished fuels through existing infrastructure. Current natural gas pipelines could transport [5-10% blends of hydrogen](#) if both supply and demand were in place, and broader adoption of hydrogen could require tailored pipeline capacity. Hydrogen derived from natural gas with a carbon capture component could also create opportunities for midstream.

## Bottom Line

Many probably underappreciate the role that fossil fuels and traditional oil and gas companies have in providing clean energy solutions. Midstream is already taking steps to support cleaner energy use with the potential for more opportunities as progress is made with renewable fuels, carbon capture, and eventually hydrogen.

## Related reading:

Many probably underappreciate the role that fossil fuels and traditional oil and gas companies have in providing clean energy solutions. Midstream is already taking steps to support cleaner energy use with the potential for more opportunities as progress is made with renewable fuels, carbon capture, and eventually hydrogen.

[Going Green: Oil & Gas Dips its Toes Into Renewables](#), June 2020

[Assessing the Threat of the Energy Transition for Oil and Gas](#), August 2020

*The Alerian Midstream Energy Index (AMNA) is the underlying index for the ETRACS Alerian Midstream Energy Index ETN.*

1// Renewable diesel is a drop-in fuel compatible with existing infrastructure and engines. On the other hand, biodiesel can only be blended at certain levels (5-20%) into conventional diesel.

## // Disclaimers

**This Document Is Impersonal and Not a Solicitation.** In jurisdictions where Alerian, S-Network Global Indexes, or their affiliates do not have the necessary licenses, this document does not constitute an offering of any security, product, or service. Alerian and S-Network Global Indexes receive compensation in connection with licensing its indices to third parties. All information provided by Alerian and S-Network Global Indexes in this document is impersonal and not customized to the specific needs of any entity, person, or group of persons. Alerian, S-Network Global Indexes, and their affiliates do not endorse, manage, promote, sell, or sponsor any investment fund or other vehicle that is offered by third parties and that seeks to provide an investment return linked to or based on the returns of any Alerian or S-Network Global Indexes index.

**No Advisory Relationship.** Alerian and S-Network Global Indexes are not investment advisors, and Alerian, S-Network Global Indexes, and their affiliates make no representation regarding the advisability of investing in any investment fund or other vehicle. This document should not be construed to provide advice of any kind, including, but not limited to, tax and legal.

**You Must Make Your Own Investment Decision.** It is not possible to invest directly in an index. Index performance does not reflect the deduction of any fees or expenses. Past performance is not a guarantee of future returns. You should not make a decision to invest in any investment fund or other vehicle based on the statements set forth in this document, and are advised to make an investment in any investment fund or other vehicle only after carefully evaluating the risks associated with investment in the investment fund, as detailed in the offering memorandum or similar document prepared by or on behalf of the issuer. This document does not contain, and does not purport to contain, the level of detail necessary to give sufficient basis to an investment decision. The addition, removal, or inclusion of a security in any Alerian or S-Network Global Indexes index is not a recommendation to buy, sell, or hold that security, nor is it investment advice.

**No Warranties.** The accuracy and/or completeness of any Alerian or S-Network Global Indexes index, any data included therein, or any data from which it is based is not guaranteed by Alerian or S-Network Global Indexes, and it shall have no liability for any errors, omissions, or interruptions therein. Alerian and S-Network Global Indexes make no warranties, express or implied, as to results to be obtained from use of information provided by Alerian and S-Network Global Indexes and used in this service, and Alerian and S-Network Global Indexes expressly disclaim all warranties of suitability with respect thereto.

**Limitation of Liability.** While Alerian and S-Network Global Indexes believe that the information provided in this document is reliable, Alerian and S-Network Global Indexes shall not be liable for any claims or losses of any nature in connection with the use of the information in this document, including but not limited to, lost profits or punitive or consequential damages, even if Alerian and S-Network Global Indexes have been advised of the possibility of same.

**Research May Not Be Current.** This document has been prepared solely for informational purposes based on information generally available to the public from sources believed to be reliable. Alerian and S-Network Global Indexes make no representation as to the accuracy or completeness of this document, the content of which may change without notice. Alerian and S-Network Global Indexes expressly disclaim any obligation to update the contents of this document to reflect developments in the energy Master Limited Partnership sector. The methodology involves rebalancings and maintenance of indices that are made periodically throughout the year and may not, therefore, reflect real-time information.

**Linked Products.** Alerian and S-Network Global Indexes licenses its indices to third parties for the creation of investment funds or other vehicles. Alerian and S-Network Global Indexes are not responsible for the information on these websites or for anything that they provide.

**Policies and Procedures.** Analytic services and products provided by Alerian and S-Network Global Indexes are the result of separate activities designed to preserve the independence and objectivity of each analytic process. Alerian and S-Network Global Indexes have established policies and procedures to maintain the confidentiality of material non-public information received during each analytic process. Alerian, S-Network Global Indexes, and their affiliates provide a wide range of services to, or relating to, many organizations, and may receive fees or other economic benefits from these organizations.

**Copyright.** No Unauthorized Redistribution. Alerian and S-Network Global Indexes © 2021. All rights reserved. This document, in whole or in part, may not be redistributed, reproduced, and/or photocopied without prior written permission.

### Alerian

alerman.com  
info@alerman.com // 972.957.7700  
3625 N. Hall St., Suite 1200, Dallas, TX 75219

### S-Network Global Indexes

snetworkglobalindexes.com  
info@snetworkinc.com // 646.467.7928  
267 Fifth Avenue, Suite 508, New York, NY, 10016